

According to another aspect of the invention, compositions including both potassium phosphate and potassium phosphonate have been found to produce substantial growth response in certain plants. Table 6 below is illustrative:

TABLE 6

FOLIAR NUTRITIONAL EVALUATIONS OF K-PHOS AND PHOS-MIGHT ON RHAPHIOLEPIS INDICA						
TREATMENT	RATE	No. of Shoots/Rep				AVG
		A	B	C	D	
1) POTASSIUM PHOSPHONATE SOLUTION	1%	22	13	20	15	17.5
2) POTASSIUM PHOSPHATE SOLUTION	1%	28	23	25	32	27.0
3) POTASSIUM PHOSPHONATE SOLUTION	1/2%	23	26	24	8	20.3
+ POTASSIUM PHOSPHATE SOLUTION	+ 1/2%					
4) POTASSIUM PHOSPHATE SOLUTION	2%	24	38	32	24	29.5
5) CONTROL	—	4	1	7	3	3.8

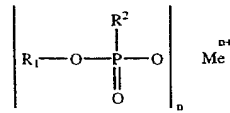
Experimental units = 3x3 gallon containers x 4 repetitions with treatments assigned in a randomized complete block design. Application dates for treatments A-D were approximately one, two, four, and three weeks apart respectively (Oct. 31, 1996; Nov. 7, 1996; Nov. 20, 1996; Dec. 19, 1996, and Jan. 8, 1997 respectively; rated Jan. 14, 1997).

As can be seen by Table 6, all four nutritional treatments provided growth responses greater than the untreated control, and K-PHOS at 1% and 2% were superior to PHOS-MIGHT at 1% and the combination of 1/2% each of PHOS-MIGHT+K-PHOS. The combination, however, produced substantially higher growth responses than the control, in fact, on a level similar to the individual treatments of K-PHOS or PHOS-MIGHT. The higher growth responses, compared to the control, can be expected when the inventive composition of Potassium Phosphate salt and Potassium phosphonate salt aqueous solution wherein each said salt is present in solution from about 0.25% vol./vol. to about 3.0% vol./vol., and preferably between 0.5% vol./vol. and 2.0% vol./vol. It is theorized that the unexpected growth responses are due to the slow conversion of PO_3 in the inventive composition to PO_4 after application. This composition further provides the added benefit of being fungicidal as well.

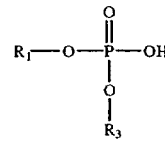
The disclosures in all references cited herein are incorporated by reference.

What is claimed is:

1. A composition for fertilizing comprising: enhanced growth stimulating effective amounts of at least a first salt having the following formula:



and a second salt having the following formula:



where R_1 is selected from the group consisting of H, K, an alkyl radical containing from 1 to 4 carbon atoms, halogen-substituted alkyl or nitro-substituted alkyl radical, an alkenyl, halogen-substituted alkenyl, alkynyl, halogen-substituted alkynyl; alkoxy-substituted alkyl radical, and ammonium substituted by alkyl or hydroxy alkyl radicals;

R_2 and R_3 are selected from the group consisting of H and K;

Me is selected from the group consisting of K, alkaline earth metal cations, aluminum atom, and ammonium cation; and

n is a whole number from 1 to 3, equal to the valence of Me,

wherein said composition comprises an aqueous solution, each said first and second salt being present in solution from about 0.25% vol./vol. to about 5% vol./vol.

2. A composition for fertilizing comprising: enhanced growth stimulating effective amounts of at least a first salt

selected from the group consisting of KH_2PO_3 , K_2HPO_3 , K_3PO_3 , $NH_3H_2PO_3$, and $(NH_3)_2HPO_3$ and a second salt

selected from the group consisting of KH_2PO_4 , K_2HPO_4 , and K_3PO_4

wherein the amount of said first salt is one part by weight and the amount of said second salt is between 0.001 and 1.000 parts by weight.

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